GTAS December 2009 Report

December was a shorter development period due to the holidays. Still a variety of work was completed as described below.

GTAS Chemical Database

While GSD is the principle developer of the GTAS system, the NOAA' Air Resources Laboratory and the Office of Response and Restoration are also working on the project. ARL has assisted GSD with the port of the toxic plume model software into the GTAS environment, and also provide routine software upgrades to the model. ORR is the principle developer of the "Computer-Aided Management of Emergency Operations" CAMEO. ORR is responsible for integrating the chemical database into the GTAS toxic plume model. Both ARL (Silver Spring) and ORR (Seattle, Washington) have downloaded the GTAS client, connect to our development server here in GSD, and participate in our on-site training sessions with forecasters and emergency managers.

Two New EOC Installations

We installed an upgraded version of the GTAS client into the Seattle site locations and conducted a second on-site training session in two EOCs – the State of Washington EOC and the Seattle Public Utilities office.

GTAS Development

In December, development was done to allow users to do automatic uploads of shapefile data into their GTAS client. When this work is completed users will be able to connect to Data Tools at the US Census Bureau to access population data, housing density and expected changes, business and government infrastructure data. This is of course in addition to the current geographical data used on the client.

AWIPS II

Preliminary work has begun on the GTAS Statement of Need for the NWS AWIPS II Operational System Improvement Process (OSIP). Two NWS meteorologists from the Office of Climate, Water and Weather Services have been identified as the NWS OSIP contacts to work with GSD.

Fast tracking some GTAS capabilities into AWIPS II has been approved and will be conducted by GSD. There are three primary functions of GTAS that are being demonstrated in NWS field offices and EOCs that will someday be operational in nationwide to assist emergency preparedness and response. These include the toxic plume model, the data display collaboration function, and the drawing tool for the creation of CAP messages. While we conduct GTAS development and deployment to establish requirements for these functions, we have been given the go ahead to transfer the collaboration function and drawing tool function directly into the AWIPS II development environment at Raytheon. This is a big step forward for GTAS. It gets some of the functionality ported directly into AWIPS II with less bureaucratic processing.

Kansas City Deployment

Discussion have taken place with the Kansas WFO and Central Region Headquarters for GTAS implementation, a site visit and proposed Kansas City GTAS domain. The outer and inner nested grids for the atmospheric model used to initialize GTAS' toxic plume model are shown below.

Routine Development

We made some routine bug fixes in the GTAS server and client software. We updated our 2010 cost matrix for Dean. Made some bug fixes to the GTAS client and are trouble shooting latency issues with the Server.